

CLAIMS

1. A suspension package comprising:
a product-supporting platform having first and second opposed
faces;
5 two end panels, each pivotally connected to a respective end of
the product-supporting platform;
two side panels, each pivotally connected to a respective side of
the product-supporting platform; and
an elastomeric enclosure mounted between the two end panels
10 and extending over the first face of the product-supporting platform;
wherein
the elastomeric enclosure is selected from the group
consisting of a C-fold hammock, an inverted C-fold hammock, a
bellows-fold hammock, a pair of first and second film materials,
15 and combinations thereof;
the two side panels are configured to pivot towards the
first face of the product-supporting platform, such that the two
side panels may be configured substantially perpendicular
thereto; and
20 the two end panels are configured to pivot towards the
second face of the product-supporting platform, thereby
tensioning the elastomeric enclosure, such that acute angles
may be formed between the second face of the product-
supporting platform and each of the end panels.
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2. The invention of claim 1 wherein the acute angles are not
greater than about fifty degrees.
3. The invention of claim 1 wherein each of the two end panels and
30 the two side panels is connected to the product-supporting platform along a
score line.

4. The invention of claim 1 wherein the product-supporting platform, the two end panels, and the two side panels are formed from a single sheet of material.
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5. The invention of claim 4 wherein the material is selected from the group consisting of paperboard, corrugated paperboard, plastics, and fiberboard.
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6. The invention of claim 4 wherein the material is corrugated paperboard.
7. The invention of claim 1 wherein the elastomeric enclosure comprises a polymeric film.
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8. The invention of claim 7 wherein the polymeric film is attached to each of the two end panels by a fastener selected from the group consisting of staples, adhesives, stitches, and combinations thereof.
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9. The invention of claim 7 wherein the elastomeric enclosure is a bellows-fold hammock.
10. The invention of claim 1 wherein at least a portion of a bottom surface of the elastomeric enclosure is attached to the first face of the product-supporting platform.
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11. The invention of claim 1 wherein at least a portion of a bottom surface of the elastomeric enclosure is attached to the first face of the product-supporting platform with an adhesive.
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12. The invention of claim 1 wherein the product-supporting platform comprises at least one perforation.

13. The invention of claim 1 wherein the product-supporting platform comprises a plurality of perforations configured to form a plurality of flaps, and wherein the flaps are configured to bend towards the second face of the product-supporting platform when a product rests thereon.

14. The invention of claim 13 wherein at least one of the flaps comprises a V-shape.

15. The invention of claim 13 wherein at least one of the flaps comprises a rectangular shape.

16. The invention of claim 1 further comprising two reinforcing flaps, each pivotally connected to an inner edge of the end panels, such that the reinforcing flaps are configured to contact the second face of the product-supporting platform.

17. The invention of claim 16 wherein the product-supporting platform, the two end panels, the two side panels, and the two reinforcing flaps are formed from a single sheet of material.

18. The invention of claim 17 wherein the product-supporting platform, the two side panels, and the two reinforcing flaps are single-wall and the two end panels are double-wall.

19. The invention of claim 18 wherein the single sheet of material is folded along outer edges of the end panels, such that first and second opposed layers of the double-wall are formed.

20. The invention of claim 17 wherein the product-supporting platform and the two side panels are single-wall, wherein the two end panels are double-wall, and wherein the two reinforcing flaps are triple-wall.

21. The invention of claim 20 wherein the single sheet of material is folded along inner and outer edges of the end panels, such that first and second opposed layers of the double-wall are formed, and first, second, and
5 third layers of the triple-wall are formed.

22. The invention of claim 17 wherein the product-supporting platform is single-wall, wherein the two side panels and the two end panels are double-wall, and wherein the two reinforcing flaps are triple-wall.
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23. The invention of claim 1 wherein the product-supporting platform comprises at least one opening, and wherein the at least one opening is circular, square, triangular, rectangular or product-shaped.

15 24. A suspension package comprising:
a product-supporting platform having first and second opposed faces;
two end panels, each pivotally connected to a respective end of the product-supporting platform;
20 two side panels, each pivotally connected to a respective side of the product-supporting platform; and
an elastomeric enclosure comprising a polymeric film, wherein the elastomeric enclosure is selected from the group consisting of a C-fold hammock, an inverted C-fold hammock, a bellows-fold hammock,
25 a pair of first and second film materials, and combinations thereof, and wherein the elastomeric enclosure is mounted between the two end panels and extends over the first face of the product-supporting platform; wherein
the product-supporting platform, the two end panels, and
30 the two side panels are formed from a single sheet of corrugated paperboard;

the two side panels are configured to pivot towards the first face of the product-supporting platform, such that the two side panels may be configured substantially perpendicular thereto; and

5 the two end panels are configured to pivot towards the second face of the product-supporting platform, thereby tensioning the elastomeric enclosure, such that acute angles may be formed between the second face of the product-supporting platform and each of the end panels.

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25. A suspension package comprising:
a product-supporting platform having first and second opposed faces;

15 two end panels, each pivotally connected to a respective end of the product-supporting platform;

 two side panels, each pivotally connected to a respective side of the product-supporting platform; and

 an elastomeric enclosure mounted between the two end panels and extending over the first face of the product-supporting platform;
20 wherein the elastomeric enclosure comprises a first portion configured to contact the product-supporting platform and a second portion, at least a portion of which is configured to overlie the first portion.

26. The invention of claim 25 wherein the two end panels are
25 configured to pivot towards and contact the second face of the product-supporting platform, thereby tensioning the elastomeric enclosure.

27. The invention of claim 26 wherein the two side panels are
configured to pivot towards the first face of the product-supporting platform,
30 such that the two side panels may be configured substantially perpendicular thereto while the two end panels are in contact with the second face of the product-supporting platform.

28. The invention of claim 27 wherein the elastomeric enclosure comprises a polymeric film.

5 29. The invention of claim 28 wherein the elastomeric enclosure is selected from the group consisting of a C-fold hammock, a bellows-fold hammock, a pair of first and second film materials, and combinations thereof.

10 30. The invention of claim 28 wherein the elastomeric enclosure comprises a C-fold hammock.

31. The invention of claim 28 wherein the elastomeric enclosure comprises a bellows-fold hammock.

15 32. The invention of claim 28 wherein the elastomeric enclosure comprises a pair of first and second film materials.

20 33. The invention of claim 29 wherein each of the two end panels and the two side panels is connected to the product-supporting platform along a score line.

25 34. The invention of claim 29 wherein the product-supporting platform, the two end panels, and the two side panels are formed from a single sheet of material.

35. The invention of claim 34 wherein the material is selected from the group consisting of paperboard, corrugated paperboard, plastics, and fiberboard.

30 36. The invention of claim 34 wherein the material is corrugated paperboard.

37. The invention of claim 36 wherein the polymeric film is attached to each of the two end panels by a fastener selected from the group consisting of staples, adhesives, stitches, and combinations thereof.

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38. The invention of claim 29 wherein at least a portion of a bottom surface of the elastomeric enclosure is attached to the first face of the product-supporting platform.

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39. The invention of claim 29 wherein at least a portion of a bottom surface of the elastomeric enclosure is attached to the first face of the product-supporting platform with an adhesive.

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40. The invention of claim 29 wherein the product-supporting platform comprises at least one perforation.

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41. The invention of claim 29 wherein the product-supporting platform comprises a plurality of perforations configured to form a plurality of flaps, and wherein the flaps are configured to bend towards the second face of the product-supporting platform when a product rests thereon.

42. The invention of claim 41 wherein at least one of the flaps comprises a V-shape.

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43. The invention of claim 29 wherein the product-supporting platform comprises at least one opening, and wherein the at least one opening is circular, square, triangular, rectangular or product-shaped.

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44. The invention of claim 29 wherein at least a portion of the product-supporting platform is perforated to form a flap, and wherein the flap is folded onto at least one of the end panels.

45. The invention of claim 29 further comprising a cushioning layer attached to the first face of the product-supporting platform, such that the cushioning layer is interposed between the product-supporting platform and the first portion of the elastomeric enclosure.

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46. The invention of claim 29 wherein at least a portion of the product-supporting platform is perforated to form at least one flap, and wherein the at least one flap fastens at least a portion of the first portion of the elastomeric enclosure against the product-supporting platform.

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47. The invention of claim 28 wherein the first portion of the elastomeric enclosure comprises a polymeric film at least a portion of which is attached to the first face of the product-supporting platform, and wherein the second portion of the elastomeric enclosure comprises an inverted C-fold hammock, such that an opening in the inverted C-fold hammock is configured to receive a product positioned on the first portion.

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48. The invention of claim 28 wherein the first portion of the elastomeric enclosure comprises a C-fold hammock at least a portion of which is attached to the first face of the product-supporting platform, and wherein the second portion of the elastomeric enclosure comprises an inverted C-fold hammock, such that an opening in the inverted C-fold hammock is configured to face an opening in the C-fold hammock.

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49. The invention of claim 47 or 48, wherein a first end of the inverted C-fold hammock is attached to one of the two end panels, and wherein a second end is free.

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50. The invention of claim 49 wherein the second portion is longer than the first portion.

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51. The invention of claim 50 wherein the second end of the inverted C-fold hammock comprises a handle.

52. A suspension system comprising:
5 a suspension package as in any one of claims 1, 24, 25, and 29;
and
an outer container for enclosing the suspension package.

53. The invention of claim 50 wherein the outer container comprises
10 a plurality of fixed panels and at least one pivotally connected flap defining an insertion and removal region.

54. A method of packaging a product comprising:
placing the product in the suspension package as in any one of
15 claims 1, 24, 25, and 29;
tensioning the elastomeric enclosure, thereby substantially immobilizing the product;
placing the suspension package in an outer container
dimensioned such that the side panels of the suspension package are
20 held in a configuration substantially perpendicular to the product-supporting platform.